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REMARKS**Election/Restriction**

New claims 26 and 27 were found to be directed to an invention that is independent or distinct from the invention set forth in the originally filed claims 1-23 and were withdrawn from consideration as being directed to a non-elected invention (See 37 CFR §1.142(b) and MPEP §821.03). The Action states that since Applicant had received an action on the merits for the originally presented invention, that invention has been constructively elected by original presentation for prosecution on the merits.

Applicant's Response

The withdrawal of claims 26 and 27 is hereby traversed. First, the Office Action fails to provide any reason to support the restriction requirement, contrary to the requirements of MPEP §803, which states:

Examiners must provide reasons and/or examples to support conclusions ... to support the restriction requirement ... (emphasis added) (see pg. 800-4, col. 1, under GUIDELINES).

It is also submitted that the restriction of claims 26 and 27 was improper under MPEP §803, which states:

If the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions. (emphasis added) (see pg. 800-4, col. 1, lines 3-6)

This position is supported by the similarities of the features recited in claims 21 and 26. These claims are reproduced below, as follows, with the similar features emphasized:

21. A compactor wheel mountable on an axle of a compaction machine, said compactor wheel comprising:

a hub mountable to an axle of a compaction machine;
a rim mounted around the outer circumference of said hub, said rim having a face and an inner circumferential edge and an outer circumferential edge;
a plurality of compaction cleats circumferentially spaced on, transversely spaced across and mounted to said face of said rim; and
an axle guard system comprising a cleat-free area formed circumferentially around said rim on said face and extending widthwise from said inner edge across said rim toward said outer edge, with said cleat-free area being wide enough that refuse is less likely to be directed toward the axle of the compaction machine. (emphasis added)

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26. A method of making a compactor wheel for a compaction machine, said method comprising:

providing a rim having a face and an inner circumferential edge and an outer circumferential edge;

mounting a plurality of compaction cleats so as to be circumferentially spaced on and transversely spaced across the face of the rim; and

forming a cleat-free area circumferentially around the rim, on the face, that extends widthwise from said inner edge across the rim toward the outer edge so as to be wide enough that refuse is less likely to be directed toward the axle of the compaction machine. (emphasis added)

Applicant respectfully requests that the Examiner explain how claim 26 is directed to an invention that is independent or distinct from the invention set forth in the originally filed claim 21. It is respectfully submitted that without such an explanation, the restriction and constructive election is improper (MPFP §803). Applicant also submits that, even if these claims are directed to independent or distinct inventions, the restriction requirement is improper because of the similarities between the claims. The search and examination of all of the claims can be made without serious burden. Furthermore, it is respectfully submitted that without having examined at least claim 26, it was improper for the Office Action to be made final. Accordingly, it is submitted that the restriction and constructive election should be withdrawn and the Office Action should be converted to a non-final action.

Reissue Oath

The Office Action states:

It is noted that the statements made in paragraphs 6, 8 and 9 (note that there are two paragraphs labelled "6") of the Reissue Oath filed September 21, 2001, are considered to be incorrect and appear to introduce new matter into the file history because the disclosure of the parent application does not disclose or even suggest that the width of the cleat-free area of the rim can be measured against anything other than the cleats 28 which are secured to the wheel rim.

The specification of the originally filed parent application makes it clear that the cleat-free area is obtained by removing the inner-most row of cleats 36, or by locating this row farther outward and extending the rim inward. See the last twelve lines of page 10 and all of page 11 of the specification of parent application 08/732901 and/or lines 13-60 of column 6 of the parent patent 5,769,507. Nowhere in the originally filed specification of the parent application is there any suggestion that the cleat-free area can be have at

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least the width of "any compaction cleat, not just the width of the compaction cleats mounted to the face of the rim" as stated in paragraphs 6 and 8 of the reissue oath.

The statements of paragraphs 6, 8 and 9 appear to introduce new matter into the file history because these statements define the width of the cleat-free area in terms broader than previously used to define the cleat-free area.

Applicant's Response

The statements made in the Office Action are respectfully traversed. The disclosure of the parent application actually does disclose and suggest that the width of the cleat-free area of the rim can be measured without reference to the cleats 28 which are secured to the wheel rim. The present specification (See the parent patent 5,769,507 ('507), column 1, line 66 through column 2, line 15.) expressly provides that there are:

"a number of ways of preventing, or at least substantially inhibiting, cable, rope, wire and other refuse and debris from wrapping around the axle of a compaction machine, behind a compactor wheel mounted on the axle. ... The present axle guard system guards or protects against (i.e., prevents or at least substantially limits) refuse from wrapping around the wheel axle during the operation of the compaction machine in compacting refuse." (emphasis added)

Furthermore, the present axle guard system can comprise a cleat-free area formed on the face of a compactor wheel (col. 6, lines 13-15 of '507). "The [cleat-free] area 37 extends up to about 10 inches from the inner edge 20 [of the compactor wheel] (see col. 6, lines 15-16 of '507). The cleat-free area "can be formed, for example," (emphasis added) by removing the inner-most row of compaction cleats (col. 6, lines 16-18 of '507), locating the inner-most row of cleats farther outward from the inner edge of the wheel (col. 6, lines 18-20 of '507) and/or extending the inner edge of the wheel inward (col. 6, lines 28-36 of '507). Please note that the latter option for forming the cleat-free area does not even involve doing anything with the cleats.

Therefore, the inventive cleat-free area is not disclosed as being, necessarily, limited to the width of any compaction cleat. Rather, the cleat-free area was intended to be such that "the refuse is less likely to be pushed toward the axle 12 and end up wrapped around the axle 12." (col. 6, lines 26-27 of '507). Accordingly, it is submitted that the statements of paragraphs 6, 8 and 9 in the Reissue Oath do not introduce new matter into the file history. If the Examiner still

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considers the present Reissue Oath defective, however, a supplemental Reissue Oath can be filed in this case, with changes reflecting the even broader disclosure and teachings that are found in the present application, as described above.

Specification

In the Office Action, the specification was objected to under 37 CFR 1.71 as failing to adequately teach how to make and/or use the invention, i.e., failing to provide an enabling disclosure. In particular, the Office Action states:

There is no description in the originally filed disclosure as to how wide the cleat-free area must be to be "wide enough that refuse is less likely to be directed toward the axle" of the compaction machine. There is no description of how wide is "wide enough" or what is meant by "less likely" as set forth in claim 21.

Applicant's Response

It is submitted that the minimum width of the cleat-free area can vary depending on, e.g., the type of refuse being compacted, the size and type of compaction wheel, the size and type of compaction machine, etc. In addition, the phrase that "the refuse is less likely to be directed toward the axle area and end up wrapped around the axle" (col. 2, lines 30-31 of '507) refers to the fact that there is a benefit with any reduction in the amount of refuse that wraps around the axle. Furthermore, by following the teachings of the present specification, it would be a matter of simple trial and error experimentation for a person of ordinary skill in this art to determine the applicable minimum width for the cleat-free area. It is uniformly recognized that even if such information was not known and disclosed in the present application, the enablement requirement under §112 can still be satisfied even if a person of ordinary skill in the art must conduct a limited degree of experimentation in order to reproduce the invention. See, e.g., Cross v. Iizuka, 753 F.2d 1040, 224 USPQ 739 (Fed. Cir. 1985).

A typical minimum width for the cleat-free area has been determined, as a result of such experimentation conducted by the applicant, to be about 4 inches from the inner edge of the wheel. This finding by the applicant is also substantiated by the sale of a competitive compaction wheel having a cleat-free area with a width of about 4 inches that has been marketed by a competitor as an axle guard system. If the Examiner considers it necessary, a declaration

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from the applicant supporting these last points can be provided.

Therefore, it is respectfully submitted that the present specification does provide an enabling disclosure. Accordingly, the objection under §1.71 should be withdrawn.

Rejection of Claims 21-25 – 35 USC § 112

Claims 21-25 were rejected under 35 USC 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The Office Action states:

There is no description in the specification to allow one of ordinary skill in the art to ascertain how wide is "wide enough that refuse is less likely to be directed toward the axle." Further, there is no measurement given to define the term "less likely."

Applicant's Response

The §112 rejection of claims 21-25 is respectfully traversed for the same reasons as discussed above regarding the objections to the present specification under 37 CFR 1.71. Accordingly, it is respectfully submitted that this §112 rejection be withdrawn.

Rejection of Claims 23 and 25 – 35 USC § 112

Claims 23 and 25 were rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Office Action states:

In claims 23 and 25, the preamble sets forth a compaction machine, yet the claims depend from claim 21 which claims only the compactor wheel by itself. The claims are indefinite because it is not clear whether Applicant intends to claim the compactor wheel, the compactor, or the combination of the two subcombination.

Applicant's Response

It is respectfully submitted that claims 23 and 25, if read in their entirety, are clearly directed to the combination of the inventive compactor wheel, as recited in respective claims 21 and 24, and other structure of a compaction machine. The claims 23 and 25 expressly recite a compaction machine that includes a body, an axle and the compactor wheel recited in the

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corresponding independent claim 21 and 24. However, in a spirit of cooperation, claims 23 and 25 have been amended to include all of the respective limitations of claims 21 and 24. Accordingly, it is respectfully submitted that this §112 rejection be withdrawn.

Rejection of Claims 21-25 and 28 – 35 USC § 103

In the Office Action, claims 21-25 and 28 were rejected under 35 USC 103(a) as being unpatentable over either one of Finley and O'Neill et al. The Office Action states:

Finley and O'Neill et al each teach a compaction wheel comprising a rim and a hub and a plurality of compaction cleats mounted to the face of the rim. A cleat-free area is provided on the rim adjacent the inner edge of the rim. While the references do not specifically state the cleat-free area would make it less likely that refuse would be directed toward the axle, this would have been obvious inasmuch as if the area is cleat-free, then it would be less likely that refuse would be able to adhere to the cleat-free area of the rim and then would be directed toward the axle.

With respect to claims 21 and 25, it is inherent that the wheels would be mounted to compaction machines.

With respect to claim 28, the width the cleat-free area extends across the rim is considered to be preselected.

Applicant's Response

The §103 rejection of claims 21-25 and 28 is traversed. As an initial matter, it is respectfully submitted that the Office Action fails to meet its burden of presenting a prima facie case of obviousness. The Office Action states that both O'Neill et al. and Finley disclose a cleat-free area adjacent the inner edge of the rim of their respective wheels. This statement is a conclusion without any factual basis of support. As such, the basis for the rejection stated in the Office Action does not support a finding of obviousness. See *In re Lec*, 61 U.S.P.Q. 2d 1430 (CAFC 2002). In addition, if either of the cited references truly disclosed the "cleat-free area" recited in the claims, as asserted in the Office Action, then this should have been a novelty rejection under §102. As discussed below, these cited references do not disclose the claimed "cleat-free area" and provide no disclosure, teaching or suggestion that would motivate the person of ordinary skill to form the claimed "cleat-free area".

As clearly described in the present application (reference number 20 and Figs. 1, 3, 5 and 6), the inner circumferential edge of the wheel rim, recited in the present claims, is the edge of the rim closest to the body of the compaction machine. The problem solved by the present

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invention is the elimination, or at least the reduction, of refuse being directed toward that portion of the axle located between the wheel and the body of the compaction machine. There is no disclosure, teaching or suggestion, in either O'Neill et al or Finley, that there is any significance or importance to the distance between the inner row of their respective cleats and the inner edge of the wheel rim. On the contrary, the focus of O'Neill et al. is on a bar 20 used to remove debris from between respective rows of compaction cleats, and the focus of Finley is on his tamping cleat 7. Neither of these references places any importance on where their respective cleats are located on the wheel. A person of ordinary skill in the art would find no motivation, from either of these references, to place an inner row of the compaction cleats of a compaction machine any particular distance from the inner edge of its compactor wheels.

In addition, even if O'Neill et al provided a reason to mount compaction cleats as shown in their Fig. 3, the inner row of cleats in O'Neill et al are not mounted a distance that is "wide enough that refuse is less likely to be directed toward the axle of the compaction machine" (i.e., the claim 21 cleat-free area). The O'Neill et al inner row of compaction cleats are mounted adjacent to the inner edge of the wheel rim. Furthermore, Finley does not even show how his cleats are mounted relative to the inner edge of his wheel rim. None of the Finley drawings illustrate the inner edge of the wheel.

Finally, please note that at least O'Neill et al was of record during the prosecution of the '799 patent. If Finley and O'Neill render the present claims 21-25 and 28 unpatentable, they should also render unpatentable the claims of US Patent No. 5,687,799 (i.e., the subject of the interference). As stated in the Office Action, the only difference between the present claim 28 and the '799 patent claim 1 is that the outermost row of cleats is positioned immediately adjacent the outer periphery of the drum. As discussed above, this structural feature is not of patentable merit.

Therefore, it is submitted that claims 21-28 are not obvious over the art of record in this case. Accordingly, it is requested that this §103 rejection be withdrawn and the claims allowed.

Interference

In the Office Action, it was found that an interference cannot be initiated with claim 28, as the proposed claim count, because claim 28 is not patentable under 35 USC §103 and a

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prerequisite for an interference under 37 USC 1.606 is that the claim be patentable to the applicant subject to a judgement in the interference. The Office Action further states:

It should be noted that claim 28 does not set forth the same patentable invention as is claimed in the 5,687,799 patent because claim 1 of the patent limits the (axially) outermost row of teeth (cleats) to be positioned immediately adjacent the outer periphery of the drum. While this is thought to mean that the axially outermost cleats are immediately adjacent the *edge* of the rim, this limitation is not found in the proposed count claim 28, and therefore the count claim is of a different scope than the patented claim. As noted in MPEP 2306, applicant must claim the same patentable invention as is claimed in the patent. Accordingly, an interference cannot be based on claim 28.

Applicant's Response

MPEP §2306 states: "An interference may be declared between an application and a patent if the application and patent are claiming the same patentable invention, as defined in 37 CFR 1.601(n), and at least one of the applicant's claims to that invention are patentable to the applicant."

It is respectfully submitted that the distinction raised in the Office Action (i.e., that the axially outermost row of cleats are positioned immediately adjacent the outer periphery of the drum) does not provide any patentable distinction between claim 28 and the invention claimed in the '799 patent, as required by 37 CFR 1.601(n). Rule 1.601(n) states:

Invention "A" is the *same patentable invention* as an invention "B" when invention "A" is the same as (35 U.S.C. 102) or is obvious (35 U.S.C. 103) in view of invention "B" assuming invention "B" is prior art with respect to invention "A".

It is submitted that the location of the axially outermost row of cleats on the compaction wheel of the '799 patent is of no patentable significance. The purpose of the '799 invention, as stated in column 2, lines 41-44, is to "greatly reduce the tendency of material and debris, particularly wire and cable, from falling from the wheel toward the frame and axle and becoming lodged therein." Regarding this purpose, there is no significance disclosed, taught or suggested in the '799 patent to the location of the axially outermost row of cleats. The only mention of the outermost row of cleats in the '799 patent is column 2, lines 19-21 and lines 35-36, where it states: "...wherein said outermost row is aligned with said second end ..."; and column 3, lines 9-10, where it states: "The outermost row of teeth 32 is generally aligned with end 22, while the innermost row of teeth 26 is spaced from end 20 a preselected distance X (FIG. 2)." (emphasis

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added).

In contrast, the location of the innermost row of cleats (i.e., the preselected distance X) is expressly disclosed as the main structural feature that solves the problem addressed by the '799 invention. The '799 patent states, in column 3, line 65 through column 4, line 1, that "the debris is not as apt to fall off the wheel assemblies toward the inner periphery 20 due to the spacing of the inner row of teeth 26 from the inner periphery. ... This is particularly helpful in the deterrence of wire or cable from falling toward the machine frame and becoming entrained about the axle 14."

In addition, it is submitted that claim 28 is patentable over the art of record for at least the reasons noted in Applicant's response to the §103 rejection.

It is also submitted that, in addition to claim 28, there is other interfering subject matter claimed in the present application and the '799 patent (MPEP §2306 and 37 CFR §1.606). For example, claims 2 and 7 in the '799 patent each recites "an upstanding flange" around the inner periphery of the drum in combination with the innermost row of cleats being spaced a preselected distance. It is submitted that the "circumferential barrier" recited in the present claims (see for example claims 6 and 14) corresponds to the "upstanding flange" recited in the '799 patent claims (compare, for example, the present structure 22 and the '799 structure 34). Present claims 13 and 20, which are dependent on claims 6 and 14, respectively, recites a cleat-free area and at least one circumferential barrier mounted on the cleat-free area, where the cleat-free area is formed circumferentially around the rim and extends widthwise from the inner edge across the rim toward the outer edge. Therefore, the present claims 13 and 20, as amended, now clearly recite the same invention as that recited in claims 2 and 7 of the '799 patent. Accordingly, at least claims 13 and 20 should be included as additional counts in the interference.

In addition, claim 5 of the '799 patent recites that the space (i.e., the preselected distance) between the inner row of cleats and the inner periphery of the cylindrical drum is approximately 7 percent to 14 percent of the overall width of the cylindrical drum. In the preferred embodiment disclosed in the '799 patent, the width of the drum is approximately 55" (see col. 3, lines 33-34). For this preferred embodiment, the preselected distance is in the range of 3.85" to 7.7".

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Therefore, this range overlaps the "up to about 10 inches" recited in claim 22 of the present application. Accordingly, it is further submitted that claim 5 should also be included as an additional count in the interference.

It is further submitted that MPEP §2306.01 is directed to the present situation, where the patent has a filing date that is later than that of the application. Under such circumstances, MPEP §2306.01 requires:

In order to avoid the issuance of two patents to the same patentable invention, the examiner should take steps to propose an interference between the application and the patent.

Applicant requests that the Examiner take such steps to propose an interference.

MPEP §2306.01 also states:

If the application contains at least one allowable claim drawn to the same patentable invention as at least one patent claim, the examiner may propose the interference by proceeding as described in MPEP §2309.

Accordingly, it is respectfully requested that the Examiner propose an interference proceeding in this case.

MPEP §2306.01 further states:

If the application discloses, but does not claim, an invention claimed in the patent, the examiner should suggest a claim or claims to the applicant (see MPEP §2305) ...

Therefore, if the Examiner is still of the opinion that the present application does not claim an invention claimed in the '799 patent, the Examiner is requested to suggest such a claim or claims.

Allowable Subject Matter

Applicant acknowledges and appreciates the finding, in the Office Action, that claims 1-20 are allowable over the prior art of record. It is submitted that amended claims 13 and 20 remain patentable over the prior art of record, especially since they are each dependent upon an allowable independent claim. In addition, the amendments to the claims 15-20, replacing

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"compactor wheel" with "compaction machine", are to correct a typing error.

CONCLUSION

For the foregoing reasons, applicant respectfully submits that claims 1-28 are in condition for allowance. In addition, claims 1-10 in the '799 patent are directed to subject matter that is patentably indistinct from at least the present claims 5, 13, 20 and 28. An interference based on the proposed counts is therefore appropriate.

Respectfully submitted,

Dated 3/20/02

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Version With Markings to Show Changes Made

Please amend claims 13, 15-20, 23 and 25, as follows:

13. (Amended) The compactor wheel as set forth in claim 6, wherein said axle guard system further comprises a cleat-free area formed circumferentially around said rim on said face and extending widthwise from said inner edge across said rim toward said outer edge a distance [at least about the width of one of said cleats], said at least one circumferential barrier being mounted on said cleat-free area.

15. (Amended) The [compactor wheel] compaction machine as set forth in claim 14, wherein said at least one circumferential barrier comprises a ring-shaped wall.

16. (Amended) The [compactor wheel] compaction machine as set forth in claim 14, wherein said at least one circumferential barrier comprises a plurality of circumferentially spaced fins.

17. (Amended) The [compactor wheel] compaction machine as set forth in claim 16, wherein said compactor wheel has an inner row of said cleats mounted adjacent to said inner circumferential edge, one of said fins is mounted to said rim between each pair of adjacent cleats forming said row.

18. (Amended) The [compactor wheel] compaction machine as set forth in claim 17, wherein said at least one circumferential barrier includes buttressing structure for support.

19. (Amended) The [compactor wheel] compaction machine as set forth in claim 18, wherein said buttressing structure is a broadening of said at least one circumferential barrier at said face of said rim.

20. (Amended) The [compactor wheel] compaction machine as set forth in claim 14, wherein said axle guard system further comprises a cleat-free area formed circumferentially

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around said rim on said face and extending widthwise from said inner edge across said rim toward said outer edge a distance [at least about the width of one of said cleats], said at least one circumferential barrier being mounted on said cleat-free area.

23. (Amended) A compaction machine comprising:
a body suitable for compacting refuse, said body having opposite sides;
an axle having two ends and mounting said body; and
a compactor wheel [according to claim 21] mounted on each end of said axle, one compactor wheel on each side of said body, said compactor wheel comprising:
 a hub mountable to said axle;
 a rim mounted around the outer circumference of said hub, said rim having a face and an inner circumferential edge and an outer circumferential edge;
 a plurality of compaction cleats circumferentially spaced on, transversely spaced across and mounted to said face of said rim; and
 an axle guard system comprising a cleat-free area formed circumferentially around said rim on said face and extending widthwise from said inner edge across said rim toward said outer edge, with said cleat-free area being wide enough that refuse is less likely to be directed toward said axle of said compaction machine.
25. (Amended) A compaction machine comprising:
a body suitable for compacting refuse, said body having opposite sides;
an axle having two ends and mounting said body; and
a compactor wheel [according to claim 24] mounted on at least one end of said axle, said compactor wheel comprising:
 a hub mountable to said axle;
 a rim mounted around the outer circumference of said hub, said rim having a face and an inner circumferential edge and an outer circumferential edge;
 a plurality of compaction cleats circumferentially spaced on, transversely spaced across and mounted to said face of said rim; and
 an axle guard system comprising a cleat-free area formed circumferentially around

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said rim on said face and extending widthwise from said inner edge across said rim
toward said outer edge, with said cleat-free area being wide enough that cable, rope or
wire refuse is less likely to be directed toward said axle and end up wrapped around said
axle of said compaction machine.